

Tree Fruit Pest Survey

Although Montana is not generally thought of as a tree fruit producing state, there is a small, but thriving tree fruit industry on the western side of the state, primarily in the Bitterroot Valley and around Flathead Lake. The primary product in the Flathead Lake area is sweet cherries. In the Bitterroot Valley growers produce mainly sour cherries and apples. During 2004, the last year for which information is available 2,360 tons of sweet cherries were produced in Montana, with a total value of about \$4.4 million. Apple production is lower, and generally for a more localized market. However, there are orchards with several acres of trees located in both production areas. Both areas are plagued by a large number of feral trees, homeowner trees that are not well managed, trees kept for strictly ornamental purposes, and native host material. As a result, insect problems do exist.

In 2005, the Flathead Cherry Growers created a Pest Management District for the Western Cherry Fruit Fly (WCFF) (*Rhagoletis indifferens* Curran). However, lack of information about other insect pests poses a challenge to all fruit growers in the state. Therefore, the Montana Department of Agriculture conducted a survey, through the CAPS program, to investigate the presence or absence of seven potential pest insects in the main fruit production areas: Flathead, Lake, Sanders, Ravalli, and Missoula Counties. The cherry insects surveyed for were European cherry fruit fly (ECFF) (*Rhagoletis cerasi* Loew), plum fruit moth (PFM) [*Cydia funebrana* (Treitschke) (also *Grapholita funebrana* Treitschke)], cherry ermine moth (CEM) (*Yponomeuta padellus* L), and cherry bark tortrix (CBT) (*Enarmonia formosana* Scopoli). The apple pests surveyed for were apple ermine moth (AEM) (*Yponomeuta malinellus* Zeller), apple tortrix (AF) (*Archips fuscocupreanus* Wlsm), and dark fruit tree Tortrix (PH) (*Pandemis heparana* Denis & Schiffermuller).

With the exception of the ECFF survey, which used 5" X 9" yellow sticky cards with food attractant, all surveys used Pherocon IIC wing traps with the appropriate pheromones, supplied by USDA APHIS PPQ.

Pests of Cherries

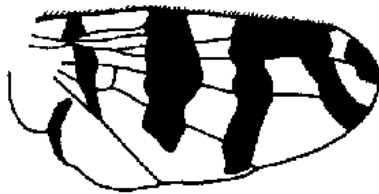
The survey did not detect any ECFF. However, there were numerous WCFF collected on the cards, as well as a very small number of apple maggots [*Rhagoletis pomonella* (Walsh)]. While apple maggot is similar to snowberry fruit fly (*Rhagoletis zephyria* Snow), there are enough differences to indicate that this insect is not the same species. Three moths were also included in the survey: Plum fruit moth (PFM), cherry ermine moth (CEM), and cherry bark tortrix (CBT). There were no detections of any of these moths.

Pests of Apples

A large number of moths were collected on the PH traps, and a smaller number on the AF traps. A select group of these traps were sent to Eric LaGasa at the Washington State Department of Agriculture for confirmatory identification. They were identified as a close relative of PH, *Pandemis pyrusana* Kearfott, and another similar moth *Clepsis virescana* (Clemens). There were no PH, AF or AEM collected.



Wing banding patterns
of deciduous fruit flies



Cherry fruit fly



Black cherry fruit fly



Apple maggot

Michigan State University Extension Publication
<http://web1.msue.msu.edu/vanburen/fappmag.htm>

***Yponomeuta malinellus* Zeller 1838**
(Yponomeutidae Yponomeutinae)
Apple Ermine Moth



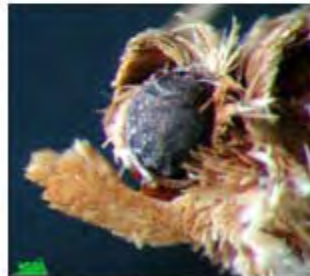
Eric H. LaGasa (360) 902-2063 Plant Prot. Div. WA State Dept. of Agriculture elagasa@agr.wa.gov

***Enarmonia formosana* Scopoli 1763**
(Tortricidae Olethreutinae) Cherry Bark Tortrix



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***Archips fuscocupreanus*-Walsingham 1900**
(Tortricidae Tortricinae) Apple Tortrix



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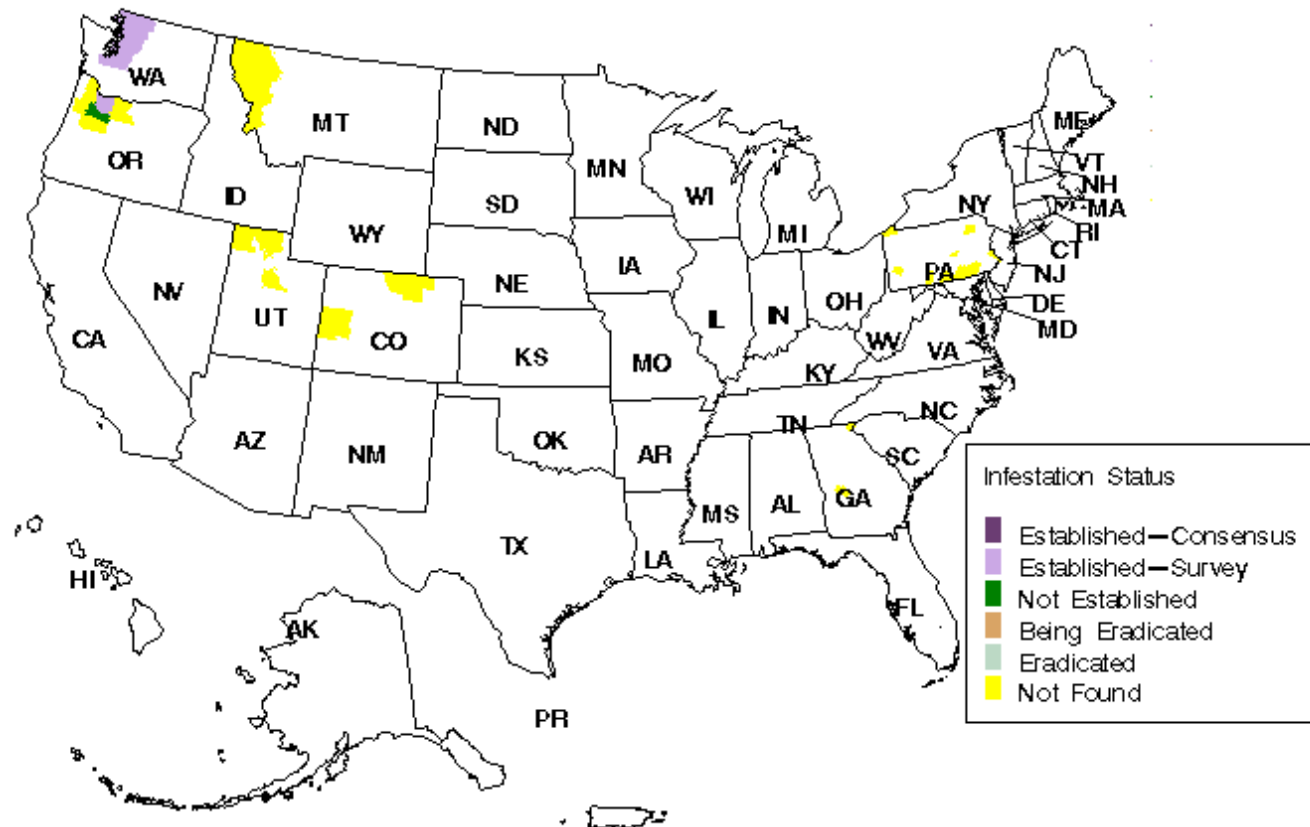
Pandemis heparana
Denis & Schiffermuller 1775
(Tortricidae Tortricinae) Dark Fruit Tree Tortrix



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Reported Status of
CHERRY BARK TORTRIX (CBT) , ENARMONIA FORMOSANA
 in US and Puerto Rico

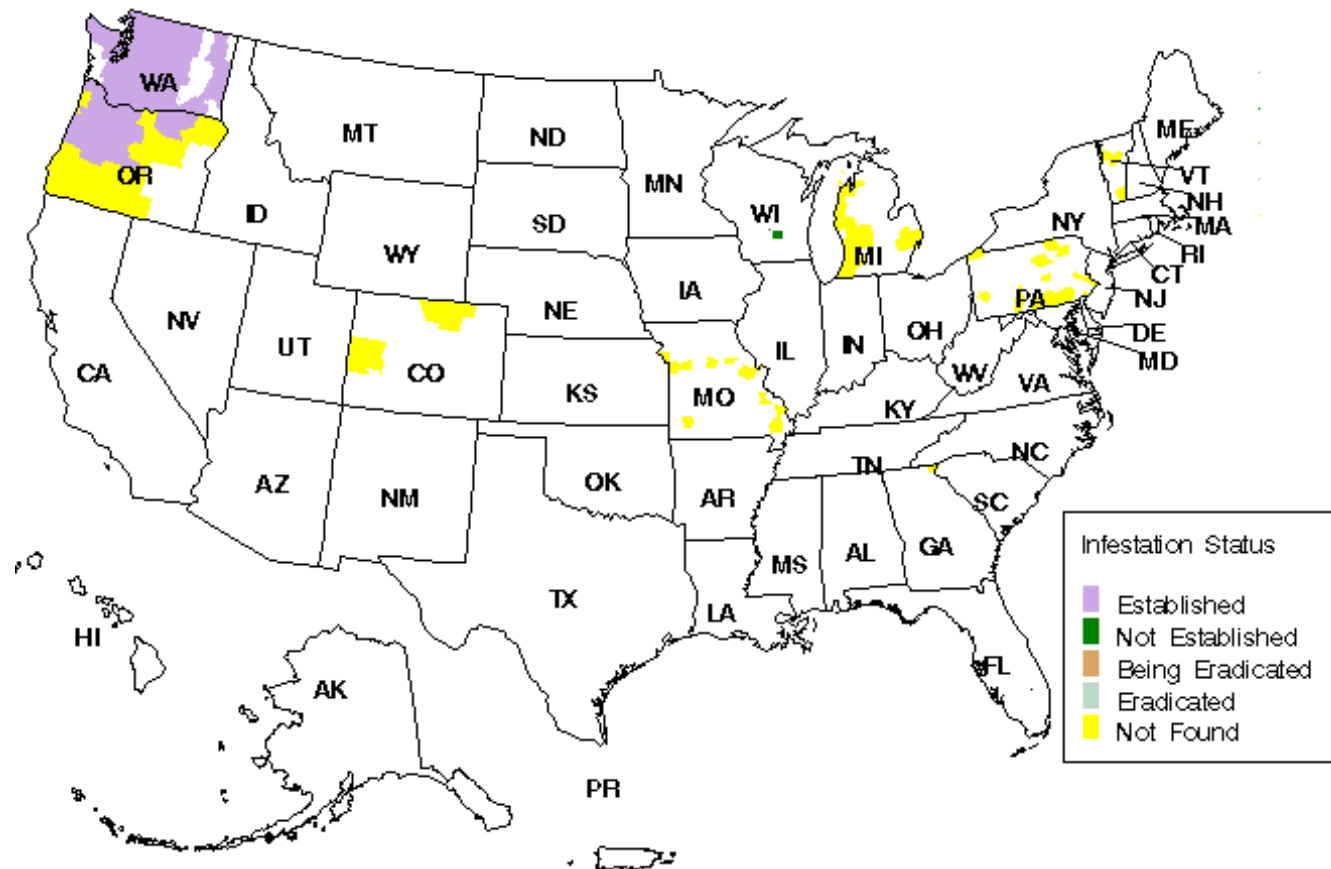
Data retrieved from National Agricultural Pest Information System on 09/08/2005



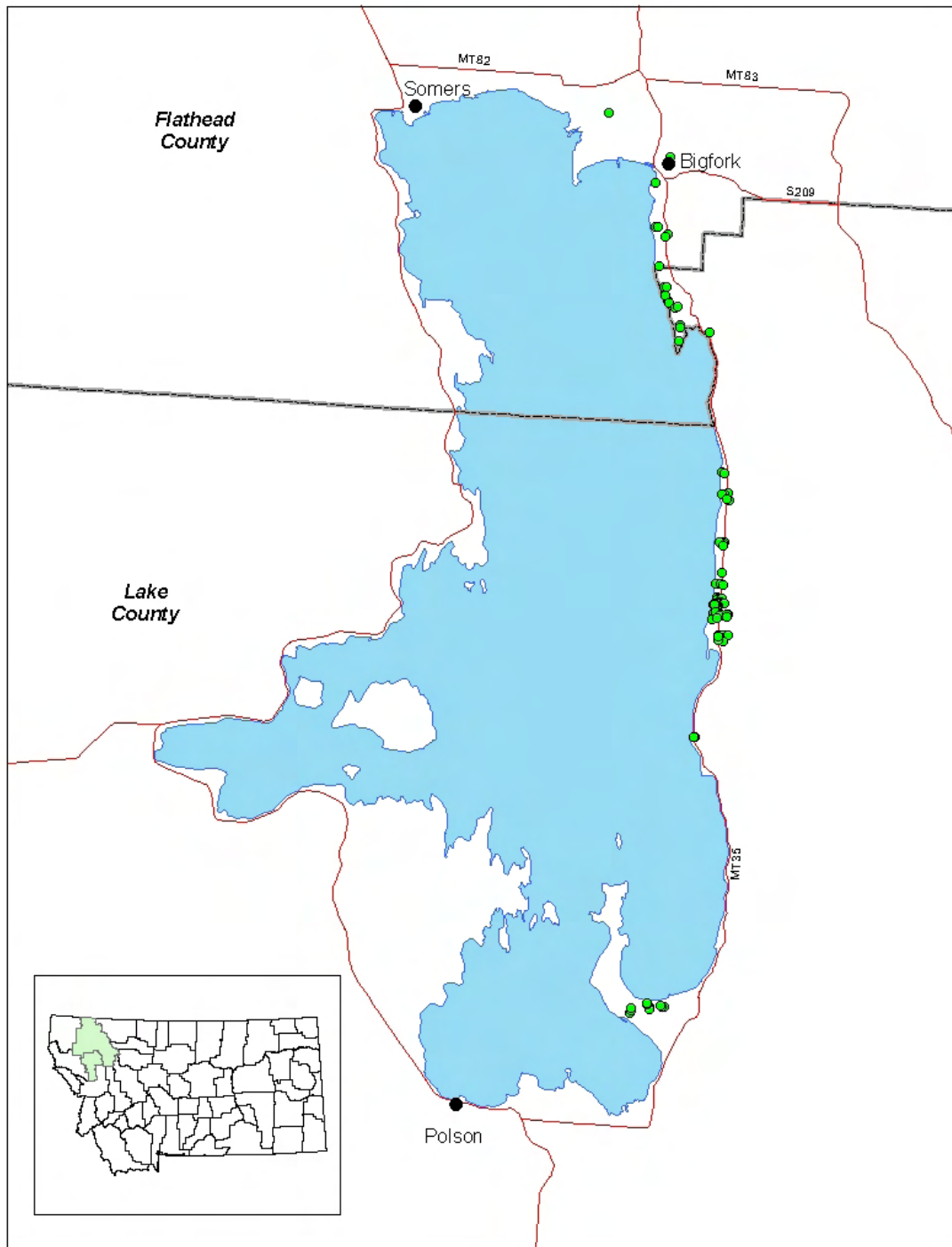
The Center for Environmental and Regulatory Information Systems does not certify the accuracy or completeness of the map. Negative data spans over last 3 years only.

Reported Status of
APPLE ERMINE MOTH (AEM) , YPONOMEUTA MALINELLUS
in US and Puerto Rico

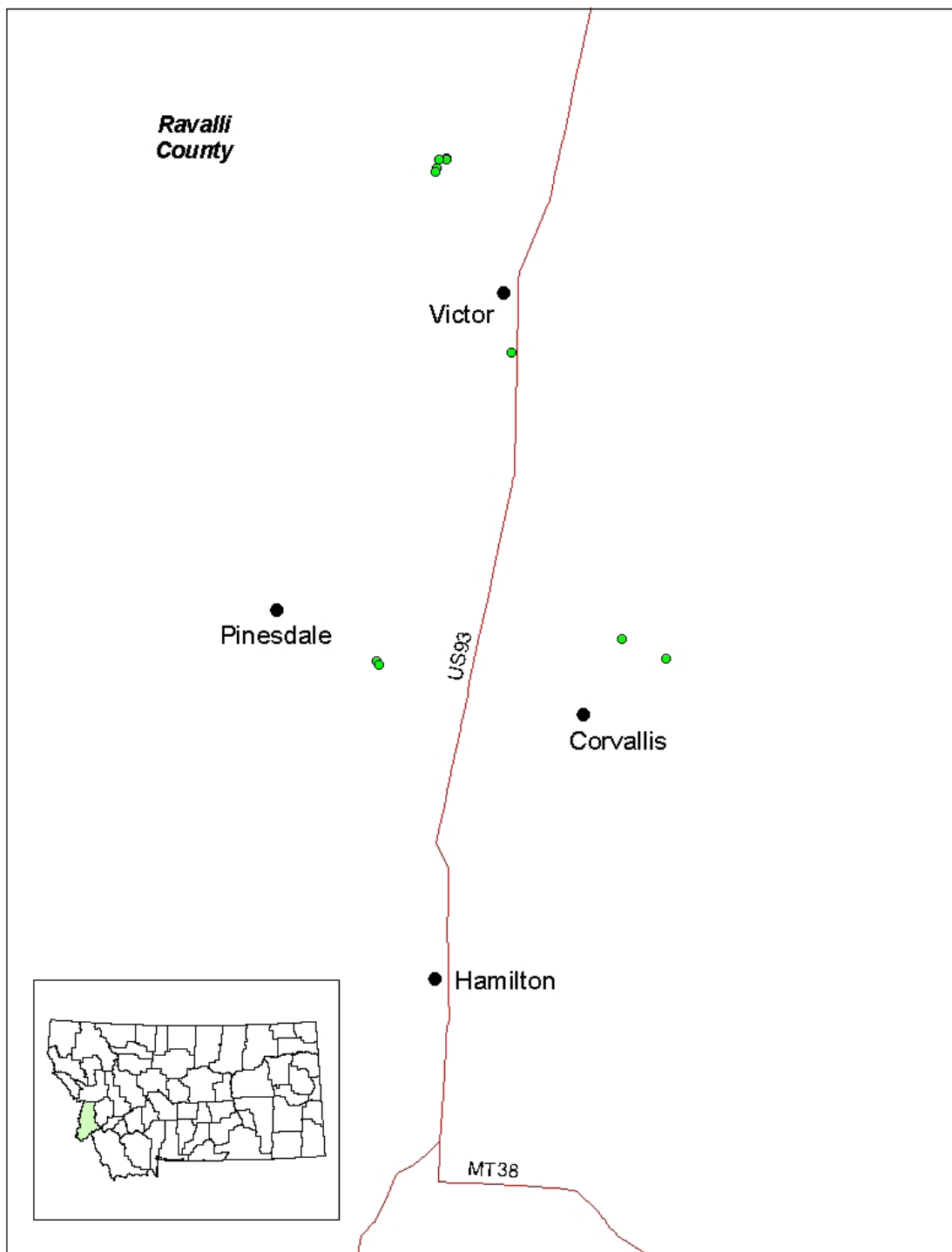
Data retrieved from National Agricultural Pest Information System on 01/06/2005



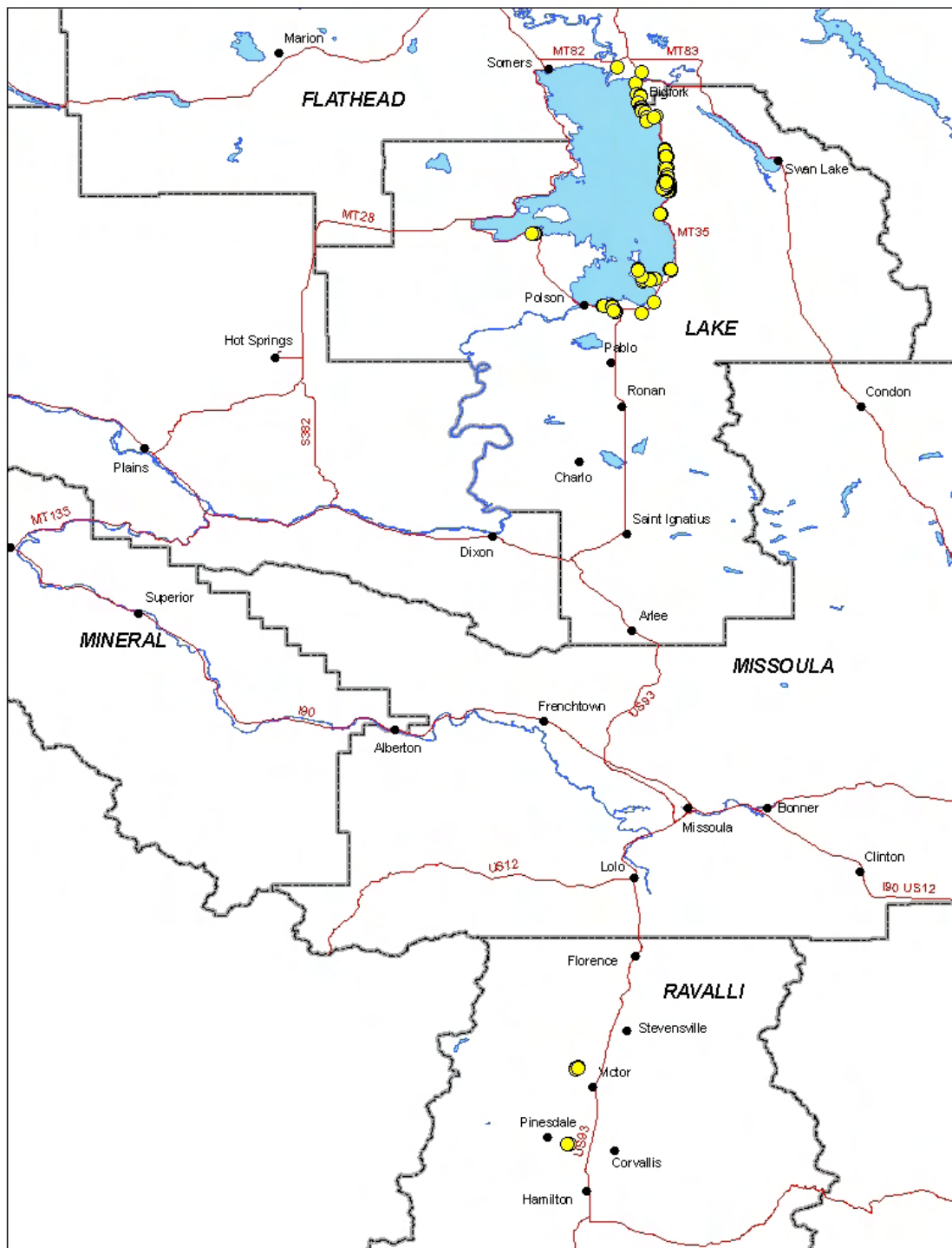
The Center for Environmental and Regulatory Information Systems does not certify the accuracy or completeness of the map. Negative data spans over last 3 years only.



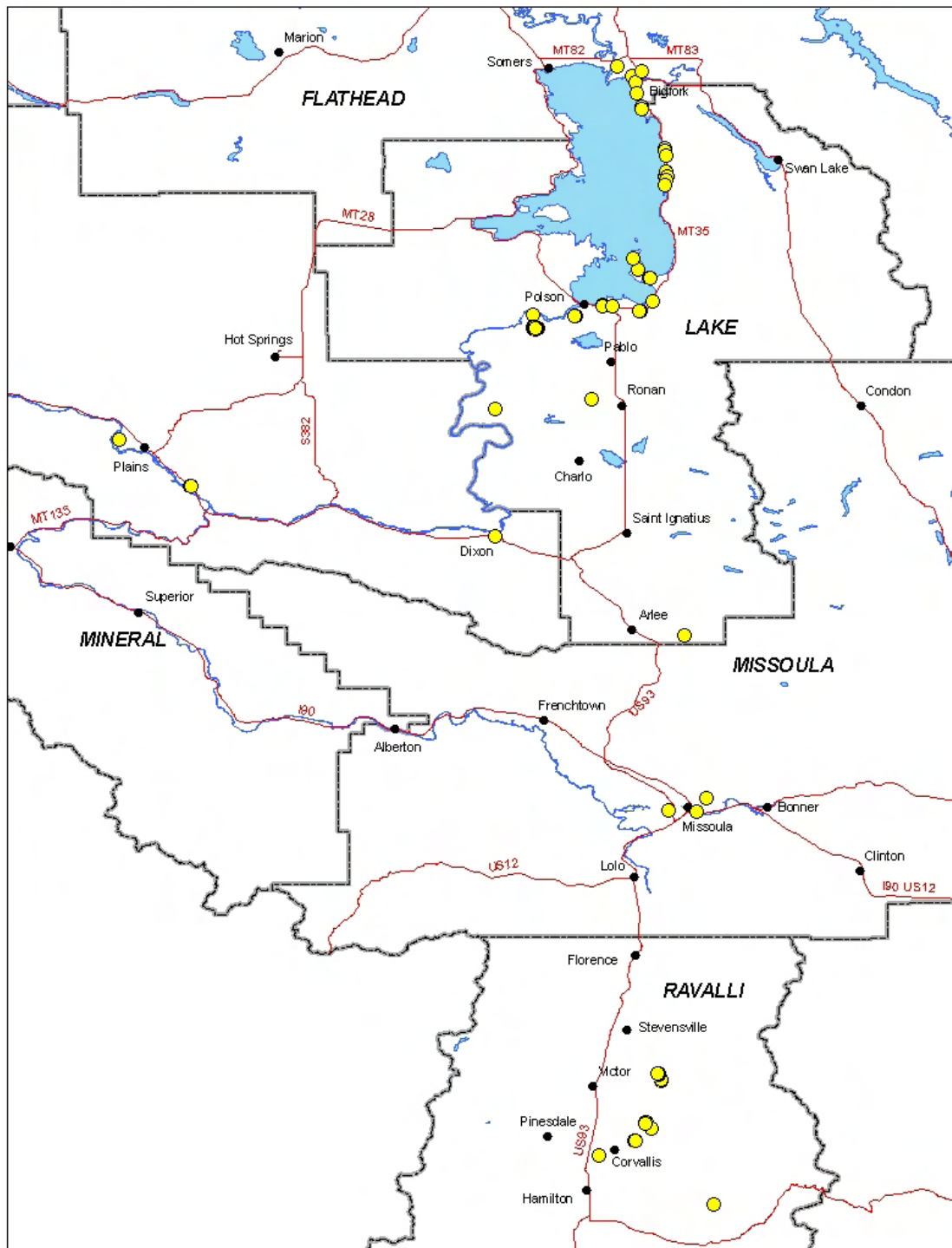
Location of European cherry fruit fly traps in the northern portion of the trapped area:
Flathead and Lake Counties, MT.



Location of European cherry fruit fly traps in the southern portion of the trapped area:
Ravalli County, MT.



Location of cherry pest traps (moths) in the western Montana area during 2005 survey.



Location of apple pest traps (moths) in the western Montana area during 2005 survey.